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# Chapter 6 Roadside Information Input

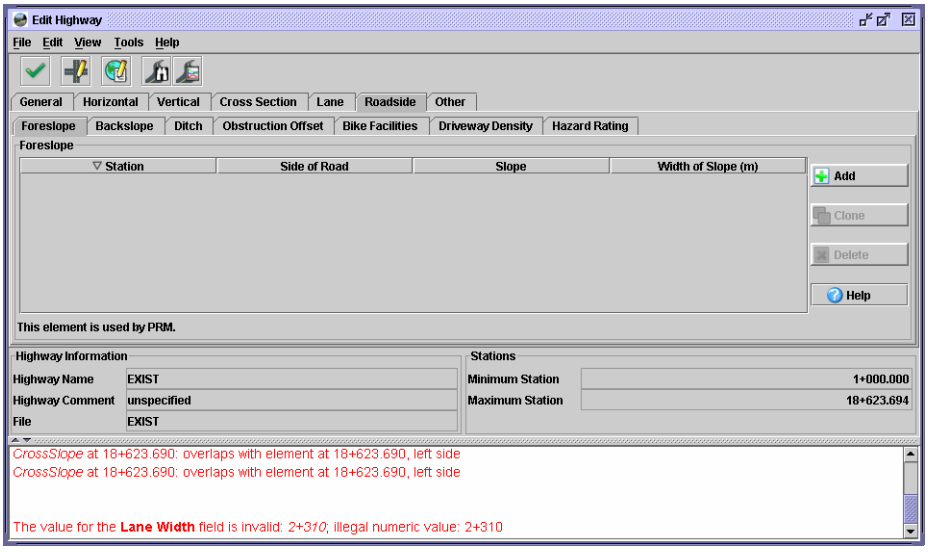
From the Roadside Information tab in the Edit/View Highway Data dialog box the following information may be input:

- Foreslopes
- Backslopes
- Ditches
- Obstruction locations
- Bike Facility locations
- Driveway Densities
- Hazard Ratings

The following workflows will guide the user on how to input each set of data using IHSDM. The title of the workflow will also indicate the modules that use that data in parenthesis. Therefore, if the user does not want a certain module, he will not waste time importing data that is not needed.

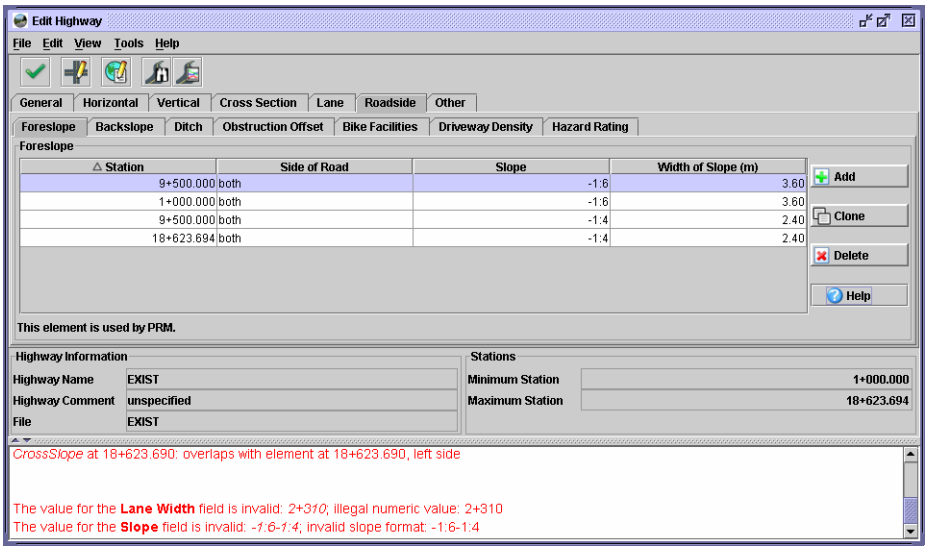
## Workflow 1: Foreslope Widths (PRM)

1. *Pick the Edit Highway button*  *while in the Main IHSDM Dialog box. This dialog box is shown in step 16 of workflow 2 in chapter 2.*
2. *Click on the Roadside>Foreslope tab and the following dialog box will appear:*




3. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Station, Side of Road, Slope, and Width of Slope. Double click the Station data field to enter the beginning or ending station where the foreslope information is located. Use the pull down menu to choose the side of the road the foreslope is on. Tab to Slope to enter the slope of the foreslope (in a ratio of rise:run), use a negative value when the*

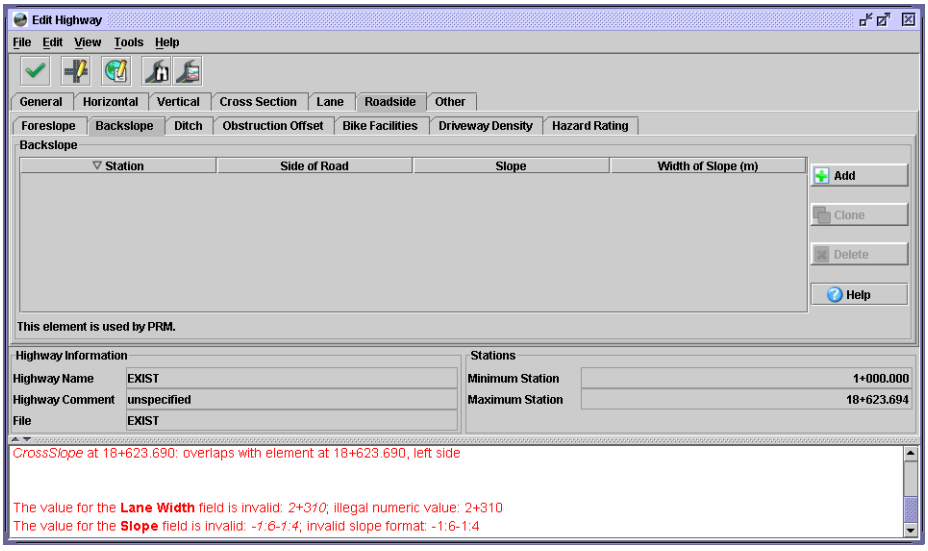
*slope goes down from the shoulder. Tab to enter the width of the foreslope. To add another line, pick Add again.*




Since IHSDM only allows one station in this dialog box, the user will have to pick Add again and fill n the end station of the constant foreslope. The same process is needed for every change in foreslope.

## Workflow 2: Backslope Width (PRM, CPM)

1. *Click on the Roadside>Backslope Tab of the Edit Highway dialog box to get the following dialog box:*

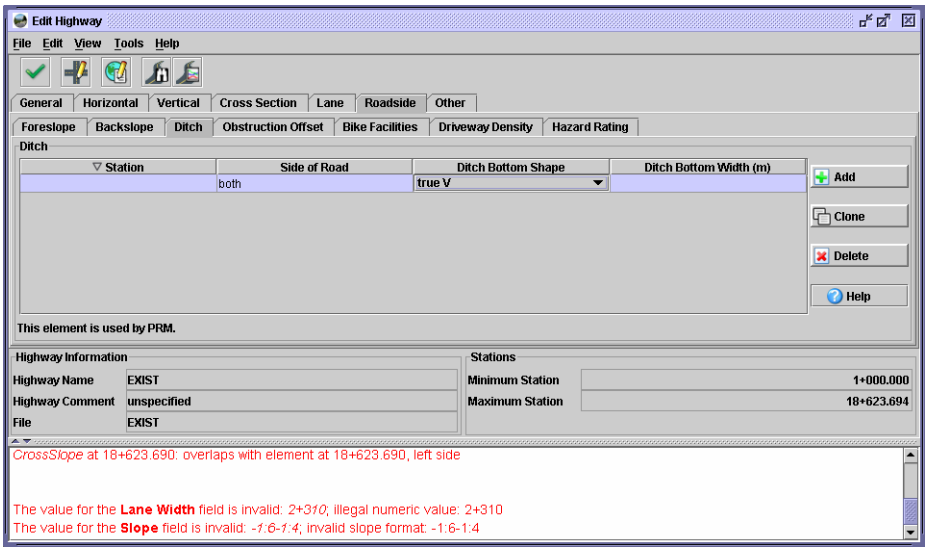



2. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Station, Side of Road, Slope, and Width of Slope. Double click the Station data field to enter*

*the beginning or ending station where the backslope information is located. Use the pull down menu to choose the side of the road the backeslope is on. Tab to Slope to enter the slope of the backslope (in a ratio of rise:run), use a negative value when the slope is in fill. Tab to enter the width of the backslope. To add another line, pick Add again.*

## Workflow 3: Ditch Shape (PRM)

1. *Click on the Roadside>Ditch Tab of the Edit Highway dialog box to get the following dialog box:*



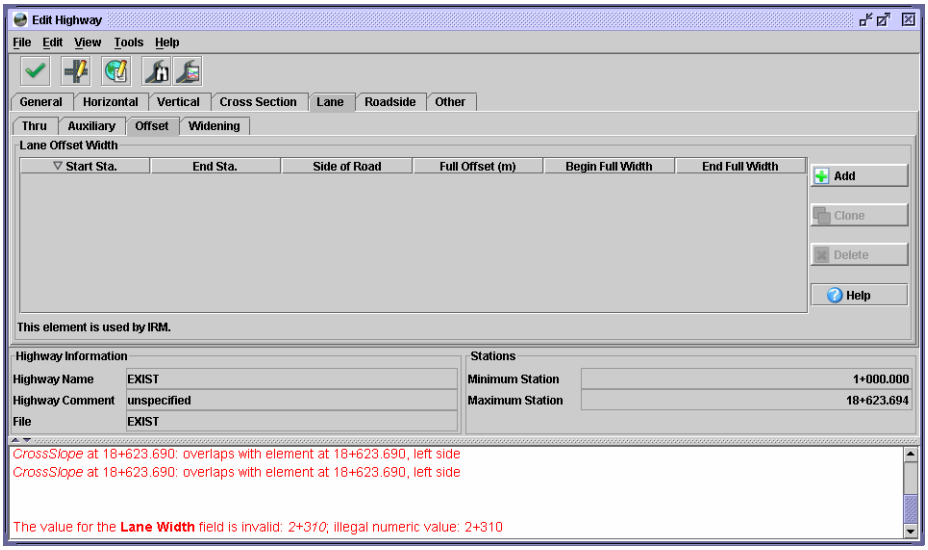

*Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Station, Side of Road, Ditch Bottom Shape, and Ditch Bottom Width. Double click the Station data field to enter the beginning or ending station where the ditch information is located. Use the pull down menu to choose the side of the road the Ditch is on. Use the pull down menu to choose a true V, rounded V, rounded trapezoidal or flat trapezoidal ditch bottom shape. Tab to Ditch Bottom Width to enter the width of the ditch bottom. To add another line, pick Add.*

### Obstruction Offset

The Obstruction Offset dialog box is for any obstructions that may be in the line of sight for sight distance calculations. The offset is measured from centerline. If no Obstruction Offset is entered, IHSDM assumes a sight obstruction at the edge of shoulder (or edge of pavement if no shoulders are present).

## Workflow 4: Obstruction Offset (PRM, TAM, CPM)

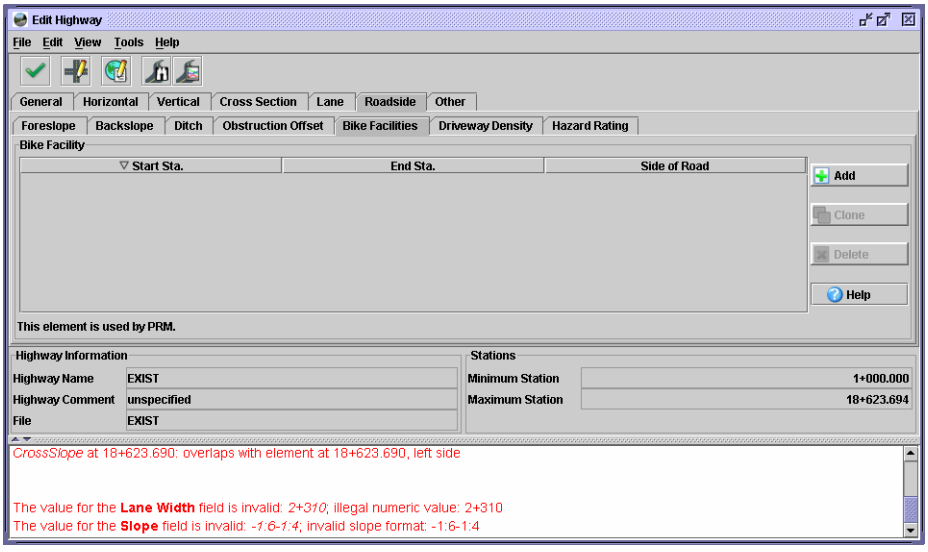
1. *Click on the Roadside>Obstruction Offset Tab of the Edit Highway dialog box to get the following dialog box:*




2. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Start Sta., End Sta., Side of Road and Centerline Offset. Double click the Start Sta. data field to enter the station where the obstruction starts. Tab to the End Sta. data field to enter the station where the obstruction ends. Use the pull down menu to choose the side of the road the obstruction is on. Tab to Centerline Offset to enter the offset of the obstruction. To add another line, pick Add again:*

## Workflow 5: Bike Facilities Location (PRM)

1. *Click on the Roadside>Bike Facilities Tab of the Edit Highway dialog box to get the following dialog box:*

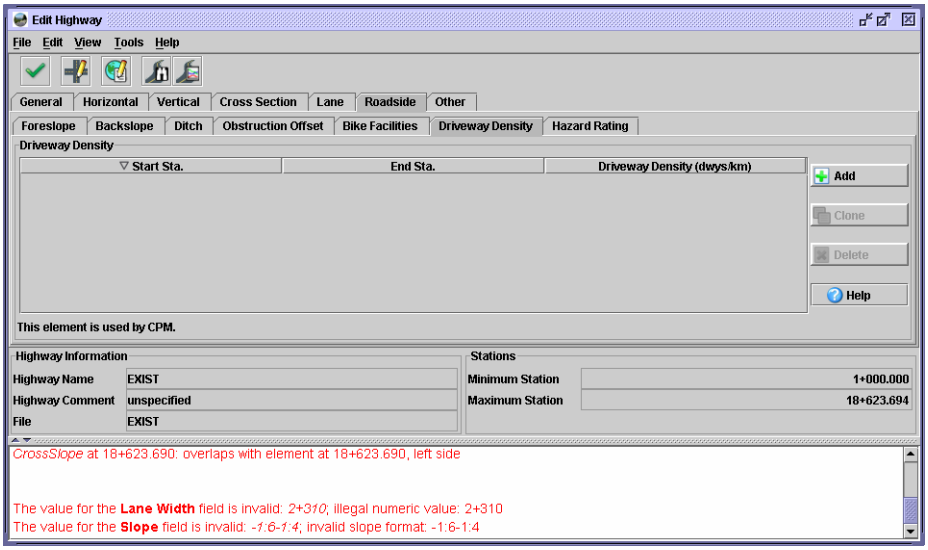



2. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Start Sta., End Sta. and Side*

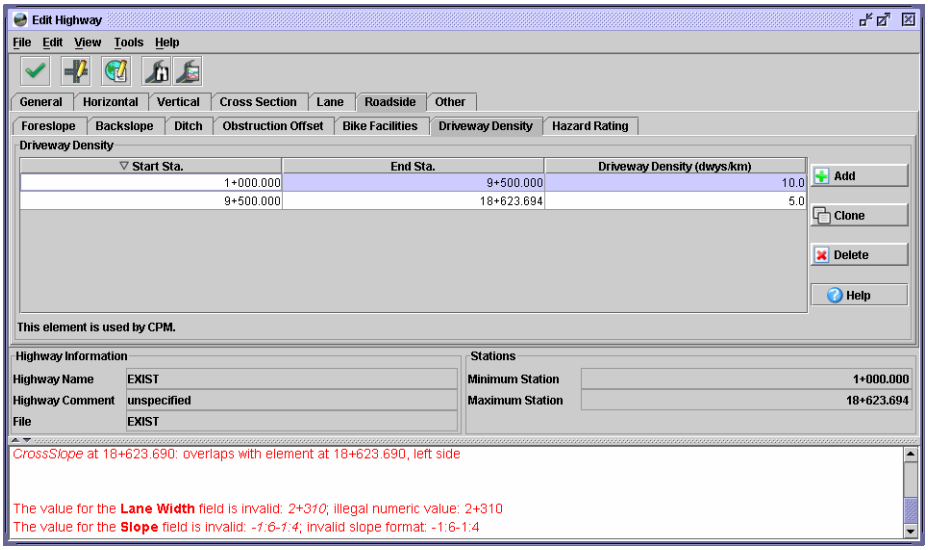
*of Road. Double click the Start Sta. data field to enter the station where the Bike Facility starts, tab to End Sta. to enter the station where the Bike Facility ends. Use the pull down menu to choose the side of the road the Bike Facility is on. To add another line, pick Add again.*

## Workflow 6: Driveway Density (CPM)

1. *Click on the Roadside>Driveway Density tab of the Edit Highway dialog box to get the following dialog box:*




2. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Start Sta., End Sta. and Driveway Density. Double click the Start Sta. data field to enter the station at the beginning of the driveway density, tab to End Sta. to enter the station at the end of the driveway density. Tab to the Driveway Density data field to enter the number of driveways per km or mile. To add another line, pick Add again.*




## Roadside Hazard Rating

The Roadside Hazard Rating is used by the Crash Prediction Module to characterize the crash potential for roadside designs. The following list describes the 7 ratings:

Rating = 1

- Wide clear zones greater than or equal to 9 m (30 ft) from the pavement edgeline.
- Sideslope flatter than 1:4.
- Recoverable.

Rating = 2

- Clear zone between 6 and 7.5 m (20 and 25 ft) from pavement edgeline.
- Sideslope about 1:4.
- Recoverable.

Rating = 3

- Clear zone about 3 m (10 ft) from pavement edgeline.
- Sideslope about 1:3 or 1:4.
- Rough roadside surface.
- Marginally recoverable.

Rating = 4

- Clear zone between 1.5 and 3 m (5 to 10 ft) from pavement edgeline.
- Sideslope about 1:3 or 1:4.
- May have guardrail (1.5 to 2 m [5 to 6.5 ft] from pavement edgeline).
- May have exposed trees, poles, or other objects (about 3 m or 10 ft from pavement edgeline).
- Marginally forgiving, but increased chance of a reportable roadside collision.

Rating = 5

- Clear zone between 1.5 and 3 m (5 to 10 ft) from pavement edgeline.
- Sideslope about 1:3.
- May have guardrail (0 to 1.5 m [0 to 5 ft] from pavement edgeline).
- May have rigid obstacles or embankment within 2 to 3 m (6.5 to 10 ft) of pavement edgeline.
- Virtually non-recoverable.

Rating = 6

- Clear zone less than or equal to 1.5 m (5 ft).
- Sideslope about 1:2.
- No guardrail.
- Exposed rigid obstacles within 0 to 2 m (0 to 6.5 ft) of the pavement edgeline.
- Non-recoverable.

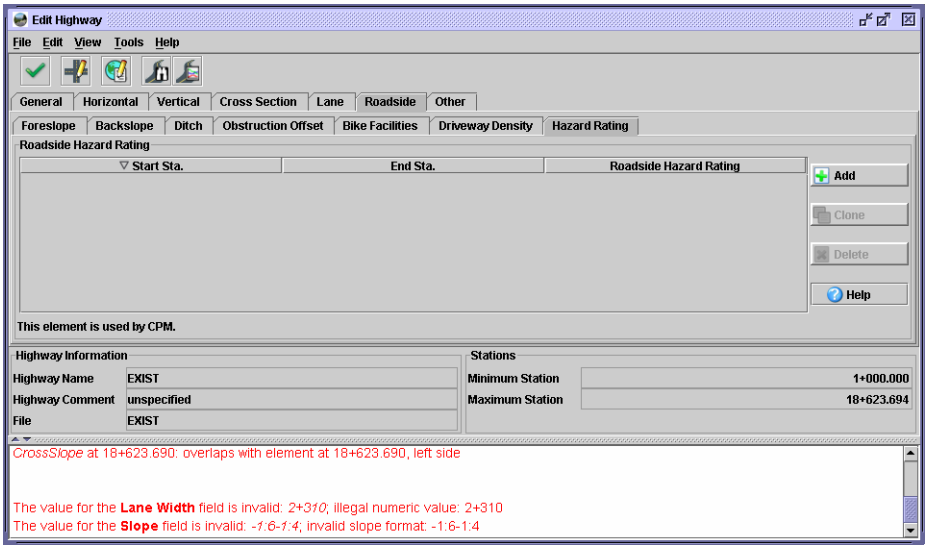
Rating = 7

- Clear zone less than or equal to 1.5 m (5 ft).
- Sideslope 1:2 or steeper.
- Cliff or vertical rock cut.
- No guardrail.
- Non-recoverable with high likelihood of severe injuries from roadside collision.

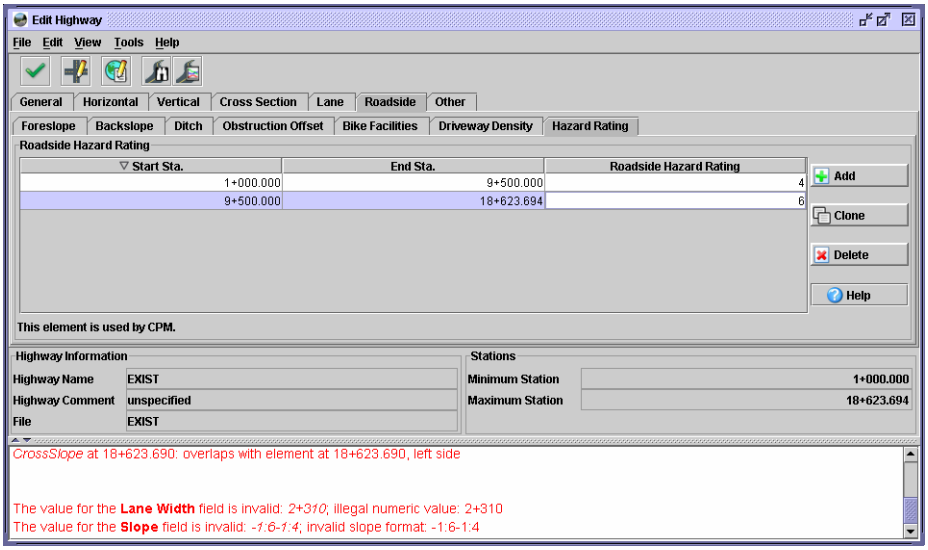
Refer to the Crash Prediction Module Engineer's Manual for a more detailed description or ratings (including photos).

## Workflow 7: Roadside Hazard Rating (CPM)

1. *Click on the Roadside>Hazard Rating Tab of the Edit Highway dialog box to get the following dialog box:*



2. *Pick the Add button at the right of the dialog box and the Row will be populated with data fields for the Start Sta., End Sta. and Roadside Hazard Rating. Double click the Start Sta. data field to enter the station at the beginning of the roadside hazard rating, tab to End Sta. to enter the station at the end of the roadside hazard rating. Use the Roadside Hazard Rating pull down menu to enter the desired roadside hazard rating. To add another line, pick Add again.*




## Using an Excel File

The Excel file with the correct format for importing Roadside Information into IHSDM is DEA.Roadside.xls. This file can be found in:

N:\Standards\IHSDM\

or on the CFLHD web site at the following link:

http://www.cflhd.gov/ihsdm.cfm

When you open this file, there is a read me worksheet and the 7 other worksheets that will be used to input all the roadside information. Each worksheet will describe what each variable is and what it is used for. The following workflow will describe the process for entering this information into IHSDM.

## Workflow 8: Excel Input

1. *Enter the correct data in the Excel spreadsheet.*
2. *Highlight the entered data and go to Edit>Copy.*
3. *Click on the General Tab of the Edit Highway dialog box.*
4. *Pick the corresponding tab for the data to be inserted.*

5. *Move the mouse over the Add button and right click the mouse to get the following:*


6. *Choose Paste row(s). The information will be loaded into IHSDM.*


Notice that this procedure is most useful when there are more than a couple of lines of data.